

Dialog Search

ur SELECT statement is:
s haemophilus (lw) influenzae

Items	File
-----	-----
27	2: INSPEC_1898-2006/Dec W2
17802	5: Biosis Previews(R)_1969-2007/Dec W5
102	6: NTIS_1964-2006/Dec W3
80	8: Ei Compendex(R)_1970-2007/Dec W4
275	9: Business & Industry(R)_Jul/1994-2007/Jan 01
138	10: AGRICOLA_70-2006/Dec
89	11: PsycINFO(R)_1887-2006/Dec W3
36	15: ABI/Inform(R)_1971-2007/Jan 04
1036	16: Gale Group PROMT(R)_1990-2007/Jan 01
55	18: Gale Group F&S Index(R)_1988-2007/Jan 01
69	19: Chem.Industry Notes_1974-2006/ISS 200652
687	20: Dialog Global Reporter_1997-2007/Jan 04
5538	24: CSA Life Sciences Abstracts_1966-2006/Oct
1	28: Oceanic Abstracts_1966-2006/Oct
9710	34: SciSearch(R)_Cited Ref Sci_1990-2007/Dec W5
238	35: Dissertation Abs Online_1861-2006/Nov
4	36: MetalBase_1965-2007/103
1	40: Enviroline(R)_1975-2006/Nov
1	41: Pollution Abstracts_1966-2006/Oct
76	42: Pharmaceuticl News Idx_1974-2006/Dec W1
2679	45: EMCare_2007/Dec W5
183	47: Gale Group Magazine DB(TM)_1959-2007/Dec 28
1	49: PAIS Int._1976-2006/Dec
757	50: CAB Abstracts_1972-2006/Nov
35	51: Food Sci.&Tech.Abs_1969-2007/Dec W4
12	53: FOODLINE(R): Science_1972-2007/Jan 03
4	56: Computer and Information Systems Abstracts_1966-2006/Dec
3	60: ANTE: Abstracts in New Tech & Engineer_1966-2006/Dec
1	64: Environmental Engineering Abstracts_1966-2006/Dec
175	65: Inside Conferences_1993-2006/Dec 15
3	67: World Textiles_1968-2007/Jan
1	68: Solid State & Superconductivity Abstracts_1966-2006/Dec
191	70: SEDBASE_1996/Jan Q1
3039	71: ELSEVIER BIOBASE_1994-2007/Dec W5
19545	73: EMBASE_1974-2007/Jan 04
664	74: Int.Pharm.Abs_1970-2006/Dec B2
1	79: Foods Adlibra(TM)_1974-2002/Apr
Examined 50	files
19	91: MANTIS(TM)_1880-2006/Jan
20	93: TableBase(R)_Sep_1997-2006/Dec W3
2492	94: JICST-EPlus_1985-2006/Sep W2
4	95: TEME-Technology & Management_1989-2007/Dec W5
2	96: FLUIDEX_1972-2006/Aug
549	98: General Sci Abs_1984-2006/Dec
47	99: Wilson Appl. Sci & Tech Abs_1983-2006/Nov
118	103: Energy SciTec_1974-2006/Nov B1
1	104: AeroBase_1999-2006/Dec
241	107: Adis R&D Insight_1986-2007/Dec W5
11	111: TGG Natl.Newspaper Index(SM)_1979-2007/Dec 14
63	112: UBM Industry News_1998-2004/Jan 27
7	113: European R&D Database_1997
1	115: Research Centers & Services_1994-2006/Nov
224	128: PHARMAPROJECTS_1980-2007/Dec W5
399	129: PHIND(Archival)_1980-2007/Dec W4
2	130: PHIND(Daily & Current)_2007/Jan 03
621	135: NewsRx Weekly Reports_1995-2006/Dec W4

17 136: BioEngineering Abstracts 1966-2006/Oct
 338 143: Biol. & Agric. Index 1983-2006/Nov
 7162 144: Pascal 1973-2006/Dec W1
 836 148: Gale Group Trade & Industry DB 1976-2007/Dec 28
 2359 149: TGG Health&Wellness DB(SM) 1976-2006/Dec W3
 1 150: Gale Group Legal Res Index(TM) 1980-2007/Dec 25
 15146 155: MEDLINE(R) 1950-2006/Dec 06
 1186 156: ToxFile 1965-2006/Nov W1
 15 158: DIOGENES(R) 1976-2006/Sep W2
 67 160: Gale Group PROMT(R) 1972-1989
 3434 162: Global Health 1983-2006/Nov
 8 164: Allied & Complementary Medicine 1984-2007/Jan
 4 167: Medical Device Register (R) 1999
 82 172: EMBASE Alert 2007/Jan 04
 628 174: Pharm-line(R) 1978-2002/Dec W3
 Examined 100 files
 92 180: Federal Register 1985-2007/Jan 03
 13 181: Adverse Reaction Database 2006/Q2
 9 182: FDA News Mar. 2002-2007/Jan 03
 2 183: Regulatory Affairs Journals 2003-2007/Jan 03
 5 185: Zoological Record Online(R) 1978-2006/Dec
 2 192: Industry Trends & Anal. 1997/Jun
 30 198: Health Devices Alerts(R) 1977-2006/Oct W2
 19 203: AGRIS 1974-2006/Sep
 34 211: Gale Group Newsearch(TM) 2007/Dec 27
 95 229: Drug Info. Fulltext 2002
 2 239: Mathsci 1940-2006/Jan
 82 266: FEDRIP 2006/Dec
 271 285: BioBusiness(R) 1985-1998/Aug W1
 138 286: Biotechnology Directory Current_Sep B1
 62 292: GEOBASE(TM) 1980-2007/Dec W4
 30 302: INDEX CHEMICUS 1993-200652
 11 303: Chapman & Hall Chemical Database 1997/Apr
 32 305: Analytical Abstracts 1980-2007/Dec W4
 57 315: ChemEng & Biotech Abs 1970-2006/Nov
 104 319: Chem Bus NewsBase 1984-2007/Jan 02
 1 322: Polymer Online
 1 323: RAPRA Rubber & Plastics 1972-2006/Nov
 Examined 150 files
 188 324: German Patents Fulltext 1967-200652
 6 331: Derwent WPI First View UD=200701
 197 332: Material Safety Data Sheets 2006/Q4
 1 335: Ceramic Abstracts/World Ceramics
 Abstracts 1966-2006/Dec
 2 336: RTECS 2006/Q4
 637 340: CLAIMS(R)/US Patent 1950-06/Dec 28
 138 342: Derwent Patents Citation Indx 1978-05/200679
 1 344: Chinese Patents Abs Jan 1985-2006/Jan
 98 345: Inpadoc/Fam. & Legal Stat 1968-2006/UD=200649
 19 347: JAPIO Dec 1976-2006/Sep(Updated 061230)
 924 348: EUROPEAN PATENTS 1978-2006/ 200701
 2844 349: PCT FULLTEXT 1979-2006/UB=20061228UT=20061221
 2 353: Ei EnCompassPat(TM) 1964-200652
 108 355: Derwent Chemistry Resource UD=200701
 463 357: Derwent Biotech Res. 1982-2007/Dec W5
 57 358: Current BioTech Abs 1983-2006/Jan
 1 360: Specialty Chemicals Update Program 2000/Q2
 11 369: New Scientist 1994-2007/Oct W2
 36 370: Science 1996-1999/Jul W3
 7 371: French Patents 1961-2002/BOPI 200209
 2375 390: Beilstein Facts 2006/Q4
 502 391: Beilstein Reactions 2006/Q4
 221 393: Beilstein Abstracts 2006/Q4
 16601 398: Chemsearch 1957-2006/Dec

6058 399: CA SEARCH(R) 1967-2006/UD=14602
 2 428: Adis Newsletters(Current) 2007/Jan 04
 314 429: Adis Newsletters(Archive) 1982-2007/Jan 04
 2 431: MediConf: Medical Con. & Events 1998-2004/Oct B2
 95 434: SciSearch(R) Cited Ref Sci 1974-1989/Dec
 10313 440: Current Contents Search(R) 1990-2007/Jan 04
 117 441: ESPICOM Pharm&Med DEVICE NEWS 2007/Jul W1
 286 444: New England Journal of Med. 1985-2007/Dec W4
 275 445: IMS R&D Focus 1991-2006/Nov W3
 288 446: IMS New Product Focus 1982-2006/Nov
 152 447: IMS Patent Focus 2006/Sep
 280 449: IMS Company Profiles 1992-2006/Aug
 375 452: Drug Data Report 1992-2006/Dec
 89 453: Drugs of the Future 1990-2006/Dec
 97 455: Drug News & Perspectives 1992-2005/Aug
 2 458: Daily Essentials 2007/Nov 07
 284 459: Daily Essentials (Archival) 1996-2006/Dec W4
 Examined 200 files
 53 461: USP DI(R) VOL. I 2006/Q1
 11 467: ExtraMED(tm) 2000/Dec
 1 482: Newsweek 2000-2007/Jan 02
 742 484: Periodical Abs Plustext 1986-2007/Dec W5
 2 505: Asian Co. Profiles 2006/Jan
 173 510: ESPICOM Pharm & Med Co. Profile 2006/May
 190 545: Investext(R) 1982-2007/Jan 04
 1 553: Wilson Bus. Abs. 1982-2006/Dec
 1 559: CORPTECH Dir of Tech Companies 2006/Oct
 1 563: Key Note Market Res. 1986-2001/Aug 03
 5 569: Decision Res Pharm Ind Rpts 1998/Aug 03
 104 570: Gale Group MARS(R) 1984-2007/Jan 01
 37 583: Gale Group Globalbase(TM) 1986-2002/Dec 13
 1 592: KOMPASS Asia/Pacific 2006/NOV
 9 605: U.S. Newswire 1999-2007/Jan 04
 18 608: KR/T Bus. News 1992-2007/Jan 04
 51 610: Business Wire 1999-2007/Jan 04
 285 613: PR Newswire 1999-2007/Jan 04
 358 621: Gale Group New Prod. Annou. (R) 1985-2007/Dec 27
 28 624: McGraw-Hill Publications 1985-2007/Jan 03
 34 635: Business Dateline(R) 1985-2007/Jan 03
 Examined 250 files
 561 636: Gale Group Newsletter DB(TM) 1987-2007/Jan 01
 2 637: Journal of Commerce 1986-2007/Jan 01
 5 646: Consumer Reports 1982-2006/Jul
 403 649: Gale Group Newswire ASAP(TM) 2007/Dec 14
 12 652: US Patents Fulltext 1971-1975
 4852 654: US Pat. Full. 1976-2007/Jan 02
 41 660: Federal News Service 1991-2002/Jul 02
 4 665: U.S. Newswire 1995-1999/Apr 29
 5 745: Investext(R) PDF Index 1999--2007/Dec W5
 58 759: Business Insights 1992-2006/Nov
 138 761: Datamonitor Market Res. 1992-2006/Jul
 47 763: Freedonia Market Res. 1990-2006/Nov
 57 764: BCC Market Research 1989-2006/Nov
 26 767: Frost & Sullivan Market Eng. 2006/Dec
 1 768: EIU Market Research 2007/Jan 03
 46 810: Business Wire 1986-1999/Feb 28
 228 813: PR Newswire 1987-1999/Apr 30

171 files have one or more items; file list includes 297 files.

? save temp

Temp SearchSave "TA356267198" stored

? rf

Your last SELECT statement was:

Set	Items	Description
S1	149912	HAEMOPHILUS (1W) INFLUENZAE
S2	45	S1 AND SAPA
S3	31	RD (unique items)

? t s3/3,ab/1-31

>>>No matching display code(s) found in file(s): 65, 107, 128-129, 135, 332, 390-391, 398, 429, 446-447, 449, 452, 459, 510, 813

3/3,AB/1 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2007 Elsevier B.V. All rts. reserv.

14124630 EMBASE No: 2006547676

The non-typeable *Haemophilus influenzae* Sap transporter provides a mechanism of antimicrobial peptide resistance and SapD-dependent potassium acquisition

Mason K.M.; Bruggeman M.E.; Munson R.S.; Bakaletz L.O.

L.O. Bakaletz, Columbus Children's Research Institute, Ohio State University, College of Medicine and Public Health, Columbus, OH United States

AUTHOR EMAIL: BakaletzL@ccri.net

Molecular Microbiology (MOL. MICROBIOL.) (United Kingdom) 2006, 62/5

(1357-1372)

CODEN: MOMIE ISSN: 0950-382X eISSN: 1365-2958

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 85

We have shown that non-typeable *Haemophilus influenzae* (NTHI) resists killing by antimicrobial peptides (APs). A mutant defective in expression of the sap (sensitivity to antimicrobial peptides) gene cluster product *SapA* is sensitive to killing by APs and is significantly attenuated in its ability to survive in a chinchilla model of otitis media compared with the parent strain. In NTHI, *SapA* is believed to function as the periplasmic solute binding protein of an ABC transporter. Here, we demonstrated that recombinant chinchilla beta defensin-1 specifically interacted with recombinant *SapA* and that AP exposure increased expression of the sap operon. We further demonstrated that the putative Sap transporter ATPase protein, SapD, was required for AP resistance as well as potassium uptake in NTHI strain 86-028NP. Loss of SapD additionally abrogated NTHI survival in vivo. Complementation of the sapD mutation restored the ability to grow in potassium-limited medium, resistance to AP-mediated killing and survival in vivo. Collectively, these data support a mechanism of Sap system-mediated resistance to APs that depends on Sap-dependent transport of APs and a Sap-dependent restoration of potassium homeostasis. Thus, NTHI required a functional Sap system to mediate bacterial survival and pathogenesis in vivo. (c) 2006 The Authors.

3/3,AB/2 (Item 2 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2007 Elsevier B.V. All rts. reserv.

12952815 EMBASE No: 2005012618

A mutation in the sap operon attenuates survival of nontypeable *Haemophilus influenzae* in a chinchilla model of otitis media

Mason K.M.; Munson Jr. R.S.; Bakaletz L.O.

L.O. Bakaletz, Department of Pediatrics, Columbus Children's Res.

Institute, OH State Univ. Coll. Med./Pub. Hlth., 700 Children's Dr.,

Columbus, OH 43205-2696 United States

AUTHOR EMAIL: BakaletzL@pediatrics.ohio-state.edu

Infection and Immunity (INFECT. IMMUN.) (United States) 2005, 73/1

(599-608)

CODEN: INFIB ISSN: 0019-9567
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 67

Bacteria have evolved strategies to resist killing by antimicrobial peptides (APs), important effectors of innate immunity. The sap (sensitivity to antimicrobial peptides) operon confers resistance to AP-mediated lulling of *Salmonella*. We have recently shown that *sapA* gene expression is upregulated in the middle ear in a chinchilla model of nontypeable *Haemophilus influenzae* (NTHI)-induced otitis media. Based on these findings, we constructed an NTHI strain containing a Lux reporter plasmid driven by the *sapA* promoter and demonstrated early yet transient expression of the sap operon within sites of the chinchilla upper airway upon infection. We hypothesized that the sap operon products mediate NTHI resistance to APs. In order to test this hypothesis, we constructed a nonpolar mutation in the *sapA* gene of NTHI strain 86-028NP, a low-passage-number clinical isolate. The *sapA* mutant was approximately eightfold more sensitive than the parent strain to killing by recombinant chinchilla beta-defensin 1. We then assessed the ability of this mutant to both colonize and cause otitis media in chinchillas. The *sapA* mutant was significantly attenuated compared to the parent strain in its ability to survive in both the nasopharynx and the middle ear of the chinchilla. In addition, the mutant was impaired in its ability to compete with the parent strain in a dual-strain challenge model of infection. Our results indicate that the products of the sap operon are important for resisting the activity of APs and may regulate, in part, the balance between normal carriage and disease caused by NTHI.

after filing

3/3,AB/3 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2007 The Thomson Corporation. All rts. reserv.

0014564640 BIOSIS NO.: 200300520003

A mutation in the sap operon attenuates nontypeable *Haemophilus influenzae* (NTHI) survival in a chinchilla model of otitis media.

AUTHOR: Mason K M (Reprint); Zhang Y; Munson R S (Reprint); Bakaletz L O (Reprint)

AUTHOR ADDRESS: College of Medicine and Public Health, Columbus Children's Research Institute and Ohio State University, Columbus, OH, USA**USA

JOURNAL: Abstracts of the General Meeting of the American Society for Microbiology 103 pB-277 2003 2003

MEDIUM: cd-rom

CONFERENCE/MEETING: 103rd American Society for Microbiology General Meeting Washington, DC, USA May 18-22, 2003; 20030518

SPONSOR: American Society for Microbiology

ISSN: 1060-2011 (ISSN print)

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract
LANGUAGE: English

after filing of 3/03

ABSTRACT: Invasion of the middle ear by nontypeable *Haemophilus influenzae* (NTHI) typically results in the development of chronic otitis media (OM). NTHI survival in this microenvironment is dependent upon its ability to acquire nutrients and resist antibacterial mechanisms of the host immune response. Using two independent yet complementary strategies, differential fluorescence induction (DFI) and signature-tagged mutagenesis (STM), we have found that resistance to the action of antimicrobial peptides (APs) appears to be critically important for NTHI survival in the middle ear during the course of OM. We have isolated an NTHI mutant that is unable to survive beyond 48 hours in the chinchilla middle ear after epitympanic bullar inoculation. This mutation was mapped to the *sapF* gene within the sap (sensitivity to antimicrobial

(c) 2006 Amer.Chem.Society All rts. reserv.

CAS REGISTRY NUMBER: 853851-47-5

MOLECULAR FORMULA: Unknown

CA NAME(S):

HP=ABC-type transport system, periplasmic component, involved in
antimicrobial peptide resistance (Haemophilus influenzae strain
86-028NP gene sapA) (9CI)

SYNONYMS: GenBank AAX88224; GenBank AAX88224 (Translated from: GenBank
CP000057)

3/3,AB/6 (Item 2 from file: 398)

DIALOG(R)File 398:Chemsearch

(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 774612-48-5

MOLECULAR FORMULA: Unknown

CA NAME(S):

HP=Dipeptide transporter (Haemophilus influenzae gene) sapA) (9CI)

SYNONYMS: 7: PN: WO2004087749 SEQID: 7 claimed protein

3/3,AB/7 (Item 3 from file: 398)

DIALOG(R)File 398:Chemsearch

(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 774612-42-9

MOLECULAR FORMULA: Unknown

CA NAME(S):

HP=DNA (Haemophilus influenzae gene) sapA) (9CI)

SYNONYMS: 1: PN: WO2004087749 SEQID: 1 claimed DNA

3/3,AB/8 (Item 4 from file: 398)

DIALOG(R)File 398:Chemsearch

(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 755056-39-4

MOLECULAR FORMULA: Unknown

CA NAME(S):

HP=Peptide transporter SapA (Haemophilus influenzae strain 86-028NP
gene sapA) (9CI)

SYNONYMS: 618: PN: WO2004078949 SEQID: 618 claimed protein

3/3,AB/9 (Item 5 from file: 398)

DIALOG(R)File 398:Chemsearch

(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 755056-38-3

MOLECULAR FORMULA: Unknown

CA NAME(S):

HP=DNA (Haemophilus influenzae strain 86-028NP gene sapA) (9CI)

SYNONYMS: 617: PN: WO2004078949 SEQID: 617 claimed DNA

3/3,AB/10 (Item 6 from file: 398)

DIALOG(R)File 398:Chemsearch

(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 755056-12-3

MOLECULAR FORMULA: Unknown

CA NAME(S):

HP=DNA (Haemophilus influenzae strain 86-028NP gene sapA fragment)
(9CI)
SYNONYMS: 591: PN: WO2004078949 SEQID: 591 claimed DNA

3/3,AB/11 (Item 7 from file: 398)
DIALOG(R)File 398:Chemsearch
(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 596780-46-0
MOLECULAR FORMULA: Unknown
CA NAME(S):
HP=Protein (Haemophilus influenzae strain 700222 gene sapA) (9CI)
SYNONYMS: GenBank AAQ12665; GenBank AAQ12665 (Translated from: GenBank
AF549211)

3/3,AB/12 (Item 8 from file: 398)
DIALOG(R)File 398:Chemsearch
(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 596780-31-3
MOLECULAR FORMULA: Unknown
CA NAME(S):
HP=DNA (Haemophilus influenzae strain 700222 gene dmsA fragment plus
gene H11048 plus gene merT plus gene sodC plus gene bexA plus gene
bexB plus gene bexC plus gene bexD plus gene fcs1 plus gene fcs2
plus gene fcs3 plus gene hcsA plus gene hcsB plus gene H11637 plus
gene sapA plus 3'-flank) (9CI)
SYNONYMS: GenBank AF549211

3/3,AB/13 (Item 9 from file: 398)
DIALOG(R)File 398:Chemsearch
(c) 2006 Amer.Chem.Soc. All rts. reserv.

CAS REGISTRY NUMBER: 169362-69-0
MOLECULAR FORMULA: Unknown
CA NAME(S):
HP=Protein (Haemophilus influenzae strain Rd gene sapA
peptide-transporting) (9CI)

3/3,AB/14 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2007 American Chemical Society. All rts. reserv.

141344612 CA: 141(21)344612r PATENT
Nontypeable Haemophilus influenzae virulence factors identified by
Signature Tag Mutagenesis Strategy (STM) in sap operon
INVENTOR(AUTHOR): Bakaletz, Lauren O.; Munson, Robert S., Jr.
LOCATION: USA
ASSIGNEE: Children's Hospital, Inc.
PATENT: PCT International ; WO 200487749 A2 DATE: 20041014
APPLICATION: WO 2004US9021 (20040324) *US PV458234 (20030327)
PAGES: 93 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: C07K-014/285A; C07K-016/12B; C12N-015/31B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;
GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;
LT; LU; LV; MA; MD; ME; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;
PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ

; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE;
BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL;
PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE;
SN; TD; TG

3/3,AB/15 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2007 American Chemical Society. All rts. reserv.

141255531 CA: 141(16)255531w PATENT
Genes of an otitis media isolate of nontypeable *Haemophilus influenzae*
INVENTOR(AUTHOR): Bakaletz, Lauren O.; Munson, Robert S., Jr.; Dyer,
David W.

LOCATION: USA
ASSIGNEE: Children's Hospital, Inc.
PATENT: PCT International ; WO 200478949 A2 DATE: 20040916
APPLICATION: WO 2004US7001 (20040305) *US PV453134 (20030306)
PAGES: 88 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:

CLASS: C12N-000/A
DESIGNATED COUNTRIES: AE; AE; AG; AL; AL; AM; AM; AM; AT; AT; AU; AZ; AZ;
BA; BB; BG; BG; BR; BR; BW; BY; BZ; BZ; CA; CH; CN; CN; CO; CO; CR; CR;
CU; CU; CZ; CZ; DE; DE; DK; DK; DM; DZ; EC; EC; EE; EE; ES; ES; FI; FI;
GB; GD; GE; GE; GH; GM; HR; HR; HU; HU; ID; IL; IN; IS; JP; JP; KE; KE; KG;
KG; KP; KP; KR; KR; KZ; KZ; LC; LK; LR; LS; LS; LT; LU; LV; MA; MD;
MD; MG; MK; MN; MW; MX; MX; MZ; MZ; NA; NI DESIGNATED REGIONAL: BW; GH; GM;
; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE;
DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK;
TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BF; BJ;
CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

3/3,AB/16 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2007 American Chemical Society. All rts. reserv.

140123522 CA: 140(9)123522p JOURNAL
Genetic analysis of the capsule locus of *Haemophilus influenzae* serotype
f
AUTHOR(S): Satola, Sarah W.; Schirmer, Patricia L.; Farley, Monica M.
LOCATION: Atlanta Veterans Affairs Medical Center and Department of
Medicine, Emory University School of Medicine, Decatur, GA, 30033, USA
JOURNAL: Infect. Immun. (Infection and Immunity) DATE: 2003 VOLUME: 71
NUMBER: 12 PAGES: 7202-7207 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE:
English PUBLISHER: American Society for Microbiology

3/3,AB/17 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2007 American Chemical Society. All rts. reserv.

124022809 CA: 124(3)22809b JOURNAL
Whole-genome random sequencing and assembly of *Haemophilus influenzae* Rd
AUTHOR(S): Fleischmann, Robert D.; Adams, Mark D.; White, Owen; Clayton,
Rebecca A.; Kirkness, Ewen F.; Kerlavage, Anthony R.; Bult, Carol J.; Tomb,
Jean-Francois; Dougherty, Brian A.; et al.
LOCATION: Inst. Genomic Res., Gaithersburg, MD, 20878, USA
JOURNAL: Science (Washington, D. C.) DATE: 1995 VOLUME: 269 NUMBER:
5223 PAGES: 496-8, 507-12 CODEN: SCIEAS ISSN: 0036-8075 LANGUAGE:
English

3/3,AB/18 (Item 1 from file: 654)

DIALOG(R)File 654:US Pat.Full.
(c) Format only 2007 Dialog. All rts. reserv.

6282161

Derwent Accession: 2004-662422

UTILITY

Genes of an otitis media isolate of %haemophilus% %influenzae%

Inventor: Bakaletz, Lauren O., Hilliard, OH, US

Munson JR., Robert S., Hilliard, OH, US

Dyer, David W., Oklahoma City, OK, US

Assignee: CHILDREN'S HOSPITAL RESEARCH, (02), Columbus, OH, US

Correspondence Address: MARSHALL, GERSTEIN & BORUN LLP, 233 S. WACKER
DRIVE, SUITE 6300, SEARS TOWER, CHICAGO, IL, 60606, US

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 20050221439	A1	20051006	US 2004795159	20040305
Provisional				US 60-453134	20030306

Fulltext Word Count: 17905

Abstract:

[00000] The invention relates to the polynucleotide sequence of a nontypeable strain of %Haemophilus% %influenzae% (NTHi) and polypeptides encoded by the polynucleotides and uses thereof. The invention also relates to NTHi genes which are upregulated during or in response to NTHi infection of the middle ear and/or the nasopharynx.

3/3,AB/19 (Item 2 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2007 Dialog. All rts. reserv.

0005859928

Derwent Accession: 2004-737663

Nontypeable %haemophilus% %influenzae% virulence factors

Inventor: Bakaletz, Lauren, INV

Munson, Robert, INV

Assignee: CHILDREN'S HOSPITAL, INC.(02), Columbus, OH, 43205, US, 700
Children's Drive

Correspondence Address: MARSHALL, GERSTEIN & BORUN LLP, 6300 SEARS
TOWER 233 S. WACKER DRIVE, CHICAGO, IL, 60606, US

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 20040219585	A1	20041104	US 2004807746	20040324
Provisional				US 60-458234	20030327

Fulltext Word Count: 14555

Abstract:

The invention relates to a mutation within the sap operon of an avirulent clone of a nontypeable strain of %Haemophilus% %influenzae% (NTHi). The invention also relates to the NTHi sap operon genes and the polypeptides encoded by these polynucleotide sequences. The invention also relates to a novel 110 kDa NTHi outer membrane protein and the polynucleotide that encodes this outer membrane protein. Methods of screening for NTHi infection, and treating and preventing NTHi related disorders are also contemplated.

copies

3/3,AB/20 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2006 WIPO/Thomson. All rts. reserv.

01427784

%HAEMOPHILUS% %INFLUENZAE% TYPE B
%HAEMOPHILUS% %INFLUENZAE% DE TYPE B

Patent Applicant/Assignee:

CHIRON CORPORATION, 4560 Horton Street, Emeryville, California 94662-8097
, US, US (Residence), US (Nationality), (For all designated states
except: US)

THE INSTITUTE FOR GENOMIC RESEARCH, 9212 Medical Center Drive, Rockville,
Maryland 20850, US, US (Residence), US (Nationality), (For all
designated states except: US)

Patent Applicant/Inventor:

MASIGNANI Vega, c/o Chiron Corporation, P.O. Box 8097, Emeryville,
California 94662-8097, US, IT (Residence), IT (Nationality),
(Designated only for: US)

RAPPUOLI Rino, c/o Chiron Corporation, P.O. Box 8097, Emeryville,
California 94662-8097, US, IT (Residence), IT (Nationality),
(Designated only for: US)

TETTELIN Herve, c/o Chiron Corporation, P.O. Box 8097, Emeryville,
California 94662-8097, US, US (Residence), BE (Nationality),
(Designated only for: US)

Legal Representative:

HARBIN Alisa A et al (agent), CHIRON CORPORATION, Intellectual Property
R-338, P.O. Box 8097, Emeryville, California 94662-8097, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 2006110413 A2 20061019 (WO 06110413)

Application: WO 2006US12606 20060330 (PCT/WO US2006012606)

Priority Application: US 2005667921 20050330

Designated States:

(All protection types applied unless otherwise stated - for applications
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR
KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG
PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC
VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL
PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 36465

English Abstract

Polypeptides comprising various amino acid sequences derived from
%Haemophilus% %influenzae% type b, including a number of lipoproteins.
These can be used in the development of vaccines for preventing and/or
treating bacterial meningitis. They may also be useful for diagnostic
purposes, and as targets for antibiotics. Antibodies against the
polypeptides are also disclosed, as are the coding nucleic acids.

French Abstract

L'invention porte sur des polypeptides comprenant diverses sequences
d'acides amines derivees de %Haemophilus% %influenzae% de type b, y
compris un nombre de lipoproteines. Celles-ci peuvent etre utilisees dans
le developpement de vaccins pour prevenir et/ou traiter la meningite

bacterienne. Elles peuvent etre egalement utilisees a des fins de diagnostic et comme cibles pour des antibiotiques. L'invention porte egalement sur des anticorps contre les polypeptides et sur les acides nucleiques codants.

3/3,AB/21 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2006 WIPO/Thomson. All rts. reserv.

01340722

METHODS OF SCREENING PROTEINS
PROCEDES DE CRIBLAGE DE PROTEINES

Patent Applicant/Assignee:

BECTION DICKINSON AND COMPANY, 1 Becton Drive, Franklin Lakes, NJ
07417-1880, US, US (Residence), US (Nationality), (For all designated
states except: US)

Patent Applicant/Inventor:

AMISS Terry J, 211 Honeysuckle Lane, Cary, NC 27513, US, US (Residence),
US (Nationality), (Designated only for: US)
PITNER J Bruce, 2903 Quincemoor Road, Durham, NC 27712, US, US
(Residence), US (Nationality), (Designated only for: US)
SNOWDEN Eileen, 110 King George Loop, Cary, NC 27511, US, US (Residence),
US (Nationality), (Designated only for: US)

Legal Representative:

HIGHET David W (agent), Becton, Dickinson and Company, 1 Becton Drive,
Franklin Lakes, NJ 07417-1880, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200623635 A2-A3 20060302 (WO 0623635)
Application: WO 2005US29381 20050818 (PCT/WO US2005029381)
Priority Application: US 2004602340 20040818; US 2004606504 20040902

Designated States:

(All protection types applied unless otherwise stated - for applications
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL
PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU
ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL
PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 18212

English Abstract

The present invention relates to methods of screening or isolating stable mutant binding proteins from a protein library of mutant proteins. The methods comprise culturing host cells under conditions suitable for protein expression. The collection of host cells comprise collectively a set of expression vectors, and this collection of expression vectors encodes the various members of a protein library of mutant binding proteins. The cultured cells, harboring the expression vectors, are contacted with a ligand, and differences in interaction, among the individual host cells, with the ligand are detected. The individual host cells displaying the desired interaction with the ligand are then separated from individual host cells that do not display the desired interaction with the ligand.

French Abstract

L'invention concerne des procedes de criblage ou d'isolation de proteines

et	Items	Description
S1	149912	HAEMOPHILUS (1W) INFLUENZAE
S2	45	S1 AND SAPA
S3	31	RD (unique items)
S4	8	S1 AND PERIPLASMIC (1W) DIPEPTIDE (1W) BINDING (1W) PROTEIN
S5	3	RD (unique items)

? t s5/3,ab/1-3

>>>No matching display code(s) found in file(s): 65, 107, 128-129, 135, 332, 390-391, 398, 429, 446-447, 449, 452, 459, 510, 813

5/3,AB/1 (Item 1 from file: 73)
 DIALOG(R)File 73:EMBASE
 (c) 2007 Elsevier B.V. All rts. reserv.

05966143 EMBASE No: 199479677
 The dipeptide permease of *Escherichia coli* closely resembles other bacterial transport systems and shows growth phase-dependent expression Abouhamad W.N.; Manson M.D.
 Department of Biology, Texas A and M University, College Station, TX 77843-3258 United States
 Molecular Microbiology (MOL. MICROBIOL.) (United Kingdom) 1994, 14/5 (1077-1092)
 CODEN: MOMIE ISSN: 0950-382X
 DOCUMENT TYPE: Journal; Article
 LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The dipeptide permease (Dpp) of *Escherichia coli* transports peptides consisting of two or three L-amino acids. The periplasmic dipeptide-binding protein (DBP), encoded by the dppA gene, also serves as a chemoreceptor. We sequenced the dpp locus, which comprises an operon of five genes, dppABCDE. Its organization is the same as the oligopeptide permease (opp) operon of *Salmonella typhimurium* and the spo0K operon of *Bacillus subtilis*. The dpp genes are also closely related to the hbpA gene, which encodes a haem-binding lipoprotein, and four other genes in an unlinked operon of unknown function in *Haemophilus influenzae*. Each Dpp protein has an Opp, Spo0K and H. influenzae homologue. Transcription of the dpp operon initiates 165 bases upstream of the predicted dppA start codon. The start site for transcription is preceded by potential -35 and -10 regions of a sigma⁷⁰ promoter. During exponential growth in Luria-Bertani (LB) broth, the level of dpp mRNA increases in two steps, one between AS₅inf 9inf 0.2 and 0.4 and one between AS₅inf 9inf 0.7 and 1.0. The 310 nucleotides between dppA and dppB include a RIP (repetitive IHF-binding palindromic) element, whose deletion from a multi-copy plasmid causes fivefold and 10-fold reductions in the levels of upstream and downstream dpp mRNA, respectively.

5/3,AB/2 (Item 1 from file: 654)
 DIALOG(R)File 654:US Pat.Full.
 (c) Format only 2007 Dialog. All rts. reserv.

0005859928
 Derwent Accession: 2004-737663
 Nontypeable *Haemophilus influenzae* virulence factors
 Inventor: Bakaletz, Lauren, INV
 Munson, Robert, INV
 Assignee: CHILDREN'S HOSPITAL, INC.(02), Columbus, OH, 43205, US, 200
 Children's Drive
 Correspondence Address: MARSHALL, GERSTEIN & BORUN LLP, 6300 SEARS
 TOWER 233 S. WACKER DRIVE, CHICAGO, IL, 60606, US

Publication Number	Kind	Date	Application Number	Filing Date
-----	-----	-----	-----	-----

applicant B

Main Patent US 20040219585 A1 20041104 US 2004807746 20040324
Provisional US 60-458234 20030327

Fulltext Word Count: 14555

Abstract:

The invention relates to a mutation within the sap operon of an avirulent clone of a nontypeable strain of *Haemophilus influenzae* (NTHi). The invention also relates to the NTHi sap operon genes and the polypeptides encoded by these polynucleotide sequences. The invention also relates to a novel 110 kDa NTHi outer membrane protein and the polynucleotide that encodes this outer membrane protein. Methods of screening for NTHi infection, and treating and preventing NTHi related disorders are also contemplated.

5/3,AB/3 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2006 WIPO/Thomson. All rts. reserv.

01167107

NONTYPEABLE *HAEMOPHILUS INFLUENZAE* VIRULENCE FACTORS
FACTEUR DE VIRULENCE D'*HEMOPHILUS INFLUENZAE* NON CLASSIFIABLE EN TYPE
Patent Applicant/Assignee:

CHILDREN'S HOSPITAL INC, 700 Children's Drive, Columbus, OH 43205, US, US
(Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

BAKALETZ Lauren O, 4825 Canterwood Court, Hilliard, OH 43026, US, US
(Residence), US (Nationality), (Designated only for: US)

MUNSON Robert S Jr, 4825 Canterwood Court, Hilliard, OH 43026, US, US
(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

SINTICH Sharon M (agent), Marshall, Gerstein & Borun, LLP, 6300 Sears
Tower, 233 South Wacker Drive, Chicago, IL 60606, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200487749 A2-A3 20041014 (WO 0487749)

Application: WO 2004US9021 20040324 (PCT/WO US04009021)

Priority Application: US 2003458234 20030327

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO
SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 14049

English Abstract

The invention relates to a mutation within the sap operon of an avirulent clone of a nontypeable strain of *Haemophilus influenzae* (NTHi). The invention also relates to the NTHi sap operon genes and the polypeptides encoded by these polynucleotide sequences. The invention also relates to a novel 110kDaNTHi outer membrane protein and the polynucleotide that encodes this outer membrane protein. Methods of screening for NTHi

Applicant

infecting, and treating and preventing NTHi related disorders are also contemplated.

French Abstract

La presente invention concerne une mutation a l'interieur de l'operon sap d'un clone avirulent d'une souche non classifiable en type de hemophilus influenzae (NTHi). Cette invention concerne aussi les genes d'operon sap et les polypeptides codes par ces sequences polynucleotidiques. Cette invention concerne aussi une nouvelle proteine de membrane externe 110kDaNTH et le polynucleotide codant pour cette proteine. Cette invention concerne enfin des techniques de recherche de NTHi infectant et des techniques de traitement et de prevention des troubles lies a NTHi.

?

```

1 *AU=BAKALETZ, L
E2      3 AU=BAKALETZ, L.
E3      20 AU=BAKALETZ, L. O.
E4      3 AU=BAKALETZ, L.O.
E5      1 AU=BAKALETZ, L*
E6      1 AU=BAKALETZ, LAUREN BETH OPREMC AK
E7      11 AU=BAKALETZ, LAUREN O
E8      42 AU=BAKALETZ, LAUREN O.
E9      25 AU=BAKALETZ, LO
E10     7 AU=BAKALETZ, LO*
E11     1 AU=BAKALETZT L O
E12     2 AU=BAKALEV S I

```

Enter P or PAGE for more

? s el-ell

>>>One or more prefixes are unsupported

>>> or undefined in one or more files.

```

1 AU=BAKALETZ, L
3 AU=BAKALETZ, L.
20 AU=BAKALETZ, L. O.
3 AU=BAKALETZ, L.O.
1 AU=BAKALETZ, L*
1 AU=BAKALETZ, LAUREN BETH OPREMC AK
11 AU=BAKALETZ, LAUREN O
42 AU=BAKALETZ, LAUREN O.
25 AU=BAKALETZ, LO
7 AU=BAKALETZ, LO*
1 AU=BAKALETZT L O

```

S6 115 El-E11

? s s6 and haemophilus

115 S6

191070 HAEMOPHILUS

S7 82 S6 AND HAEMOPHILUS

? rd

>>>Duplicate detection is not supported for File 398.

>>>Duplicate detection is not supported for File 654.

>>>Duplicate detection is not supported for File 349.

>>>Duplicate detection is not supported for File 390.

>>>Duplicate detection is not supported for File 348.

>>>Duplicate detection is not supported for File 340.

>>>Duplicate detection is not supported for File 174.

>>>Duplicate detection is not supported for File 391.

>>>Duplicate detection is not supported for File 452.

>>>Duplicate detection is not supported for File 429.

>>>Duplicate detection is not supported for File 446.

>>>Duplicate detection is not supported for File 459.

>>>Duplicate detection is not supported for File 449.

>>>Duplicate detection is not supported for File 107.

>>>Duplicate detection is not supported for File 128.

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 332.

>>>Duplicate detection is not supported for File 70.

>>>Duplicate detection is not supported for File 324.

>>>Duplicate detection is not supported for File 510.

>>>Duplicate detection is not supported for File 447.

>>>Records from unsupported files will be retained in the RD set.

S8 48 RD (unique items)

? s s8 and sap

48 S8

390190 SAP

S9 3 S8 AND SAP

? t s9/3,ab/1-3

>>>No matching display code(s) found in file(s): 65, 107, 128-129, 135, 332, 390-391, 398, 429, 446-447, 449, 452, 459, 510, 813

9/3,AB/1 (Item 1 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

(c) 2007 American Chemical Society. All rts. reserv.

142237610 CA: 142(13)237610n JOURNAL

A mutation in the sap operon attenuates survival of nontypeable Haemophilus influenzae in a chinchilla model of otitis media

AUTHOR(S): Mason, Kevin M.; Munson, Robert S., Jr.; Bakaletz, Lauren O.

LOCATION: Department of Pediatrics, Columbus Children's Research Institute, The Ohio State University College of Medicine and Public Health, Columbus, OH, USA

JOURNAL: Infect. Immun. (Infection and Immunity) DATE: 2005 VOLUME: 73

NUMBER: 1 PAGES: 599-608 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE:

English PUBLISHER: American Society for Microbiology

after July

9/3,AB/2 (Item 2 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

(c) 2007 American Chemical Society. All rts. reserv.

141344612 CA: 141(21)344612r PATENT

Nontypeable Haemophilus influenzae virulence factors identified by

Signature Tag Mutagenesis Strategy (STM) in sap operon

INVENTOR(AUTHOR): Bakaletz, Lauren O.; Munson, Robert S., Jr.

LOCATION: USA

ASSIGNEE: Children's Hospital, Inc.

PATENT: PCT International; WO 200487749 A2 DATE: 20041014

APPLICATION: WO 2004US9021 (20040324) *US PV458234 (20030327)

PAGES: 93 pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: C07K-014/285A; C07K-016/12B; C12N-015/31B

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; A2; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AM; A2; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

appears

9/3,AB/3 (Item 1 from file: 484)
DIALOG(R)File 484:Periodical Abs Plustext
(c) 2007 ProQuest. All rts. reserv.

07371664 SUPPLIER NUMBER: 1170133721

The non-typeable *Haemophilus influenzae* Sap transporter provides a mechanism of antimicrobial peptide resistance and SapD-dependent potassium acquisition

Mason, Kevin M; Bruggeman, Molly E; Munson, Robert S; Bakaletz, Lauren O
Molecular Microbiology (MMB), v62 n5, p1357

Dec 2006

ISSN: 0950-382X

JOURNAL CODE: MMB

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Abstract

ABSTRACT: We have shown that non-typeable *Haemophilus influenzae* (NTHI) resists killing by antimicrobial peptides (APs). A mutant defective in expression of the Sap (sensitivity to antimicrobial peptides) gene cluster product SapA is sensitive to killing by APs and is significantly attenuated in its ability to survive in a chinchilla model of otitis media compared with the parent strain. In NTHI, SapA is believed to function as the periplasmic solute binding protein of an ABC transporter. Here, we demonstrated that recombinant chinchilla beta defensin-1 specifically interacted with recombinant SapA and that AP exposure increased expression of the Sap operon. We further demonstrated that the putative Sap transporter ATPase protein, SapD, was required for AP resistance as well as potassium uptake in NTHI strain 86-028NP. Loss of SapD additionally abrogated NTHI survival in vivo. Complementation of the SapD mutation restored the ability to grow in potassium-limited medium, resistance to AP-mediated killing and survival in vivo. Collectively, these data support a mechanism of Sap system-mediated resistance to APs that depends on Sap-dependent transport of APs and a Sap-dependent restoration of potassium homeostasis. Thus, NTHI required a functional Sap system to mediate bacterial survival and pathogenesis in vivo. (PUBLICATION ABSTRACT)

*John
July*